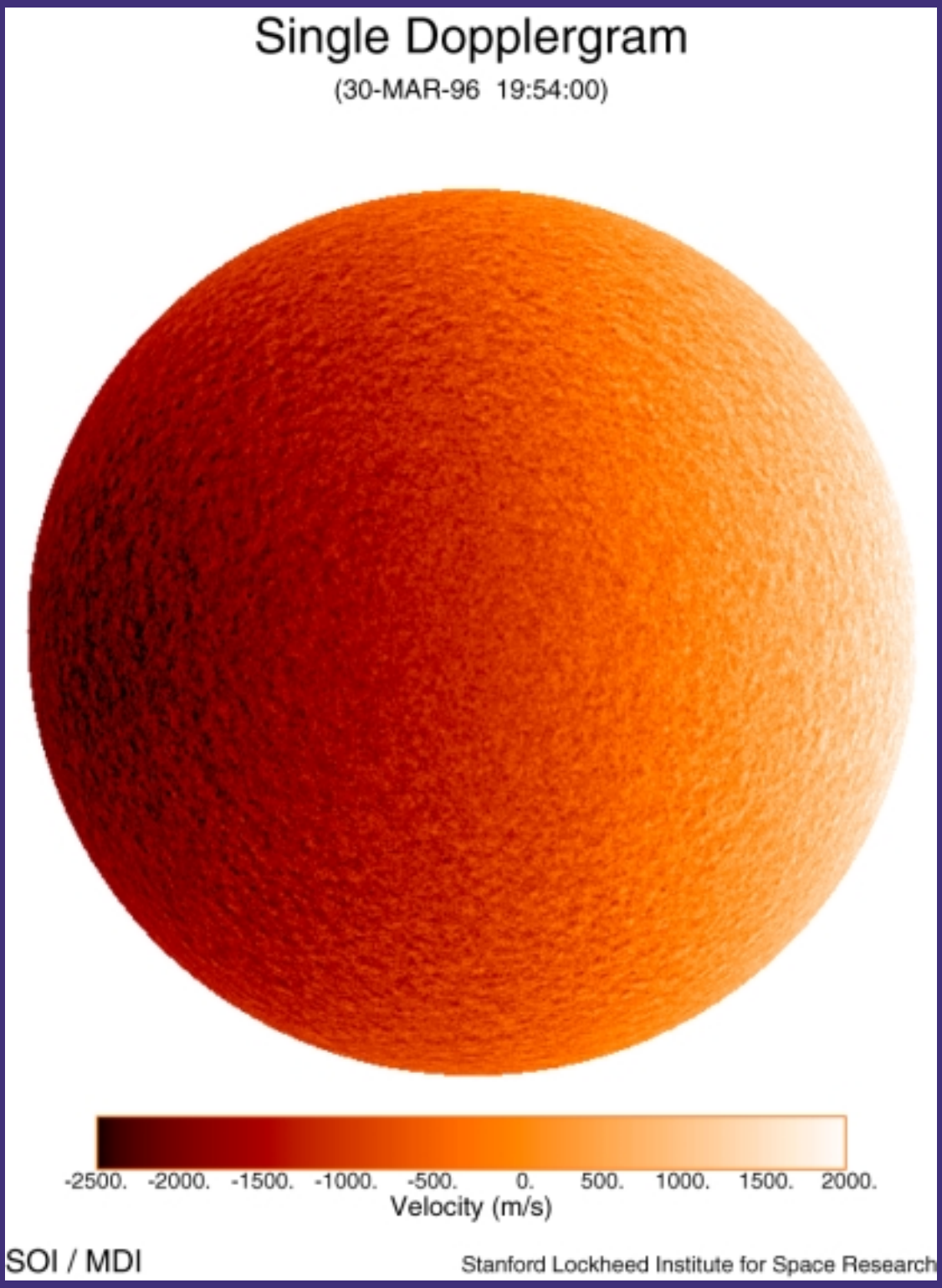


MDI Full Disk Dopplergram

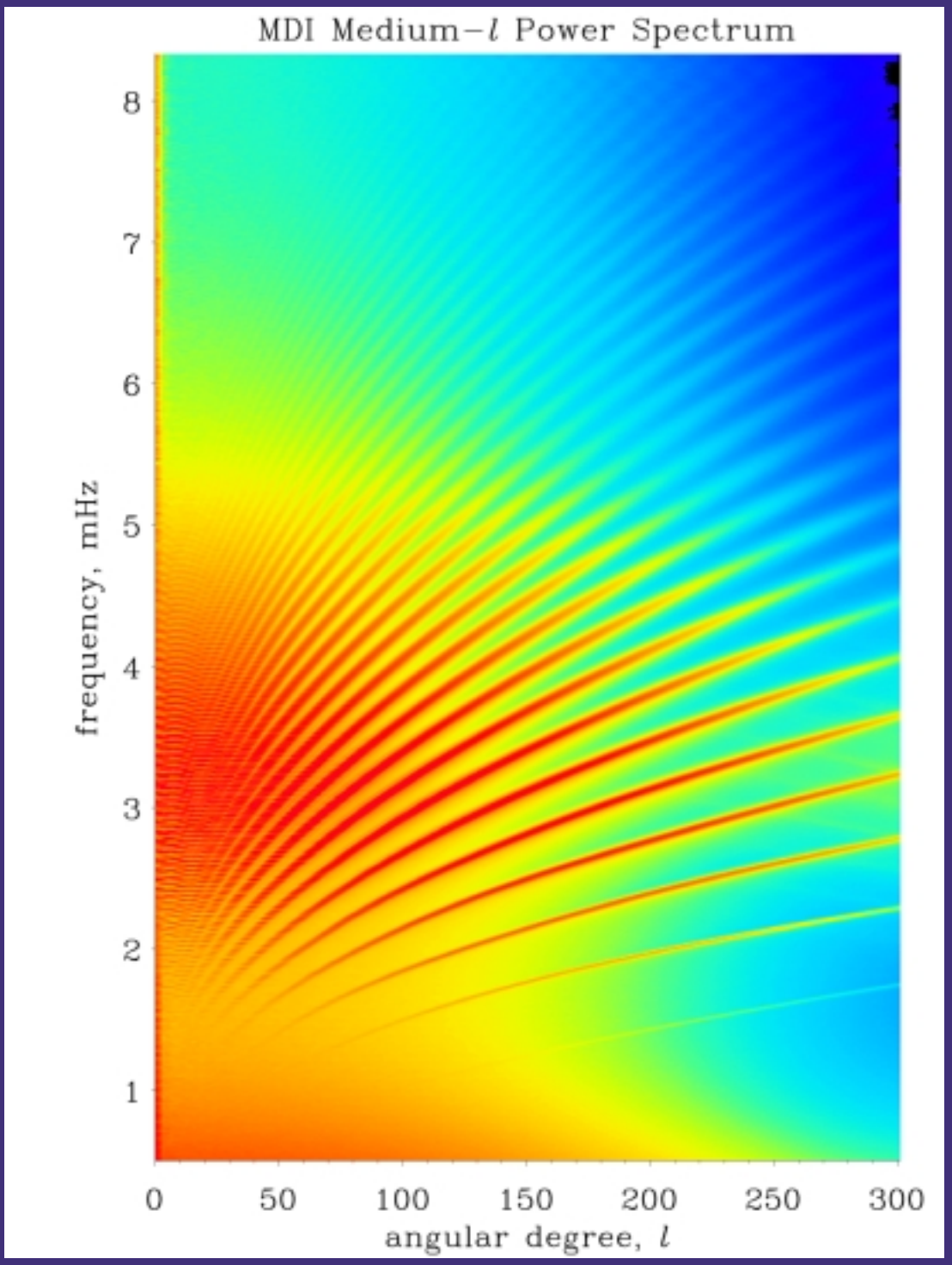
(dark colors = motion toward the observer)

MDI Full Disk Dopplergram

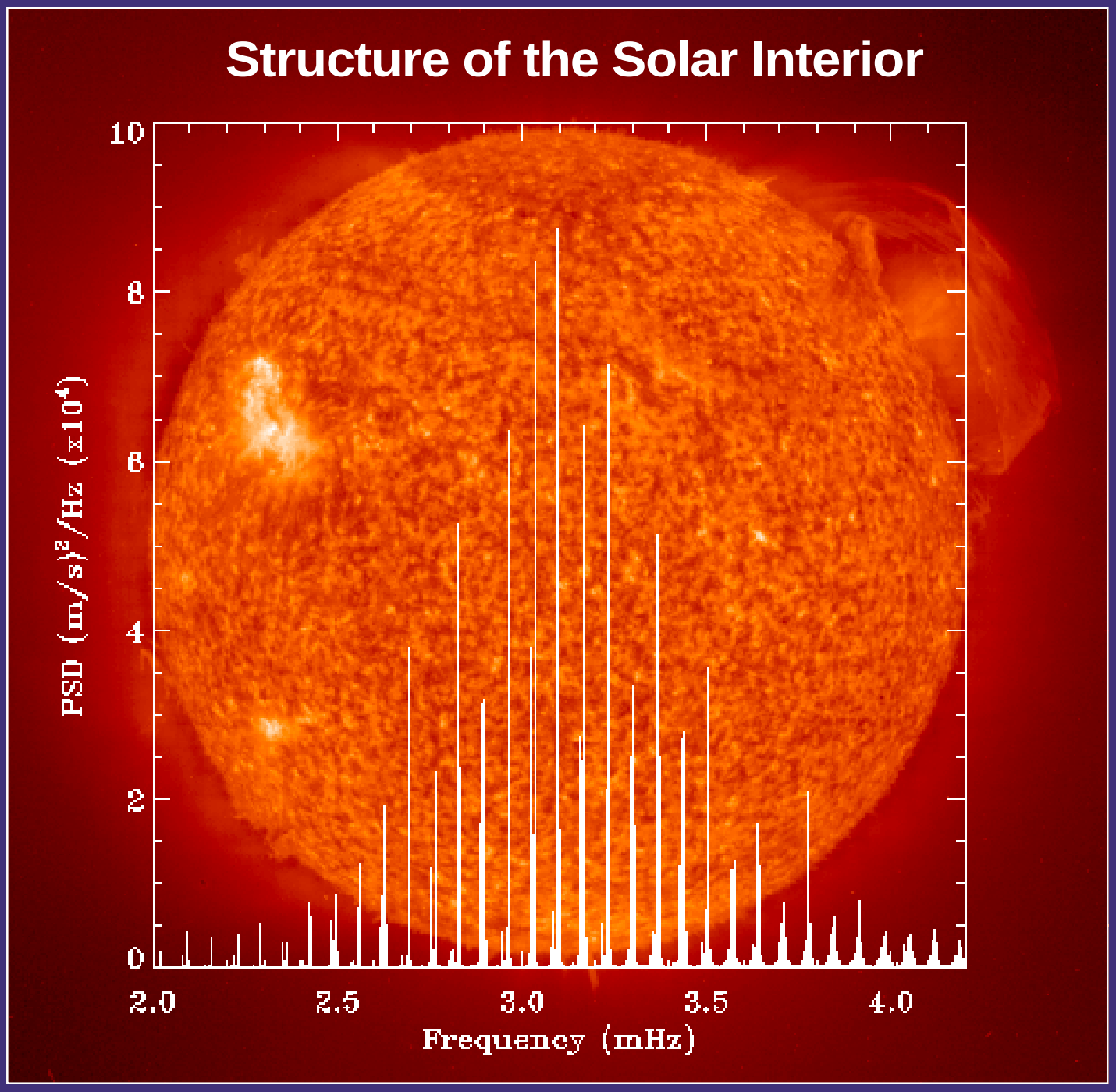
showing superanular convection cells on the Sun's surface

MDI Full Disk Dopplergram

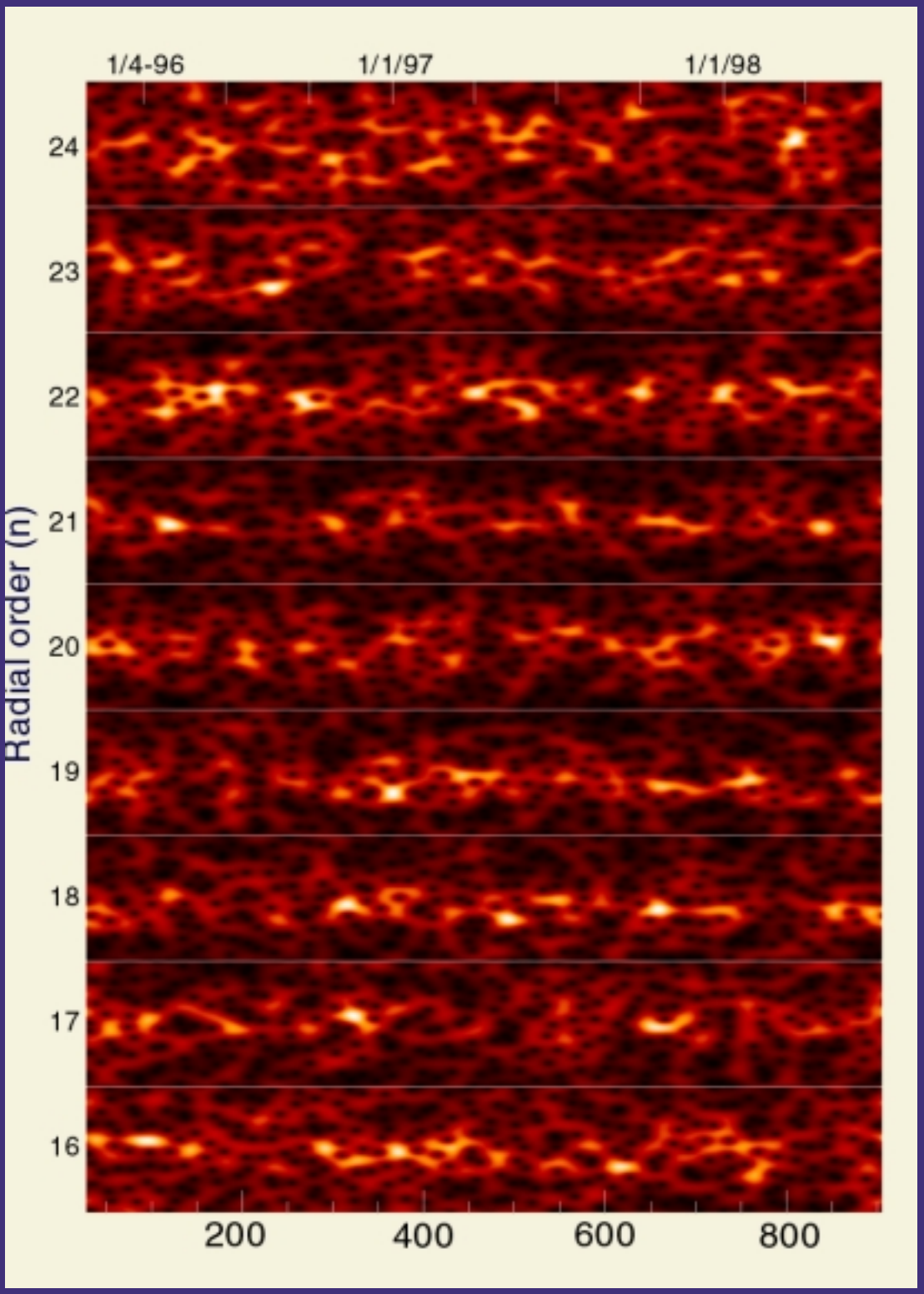
showing the p-mode oscillations of the Sun



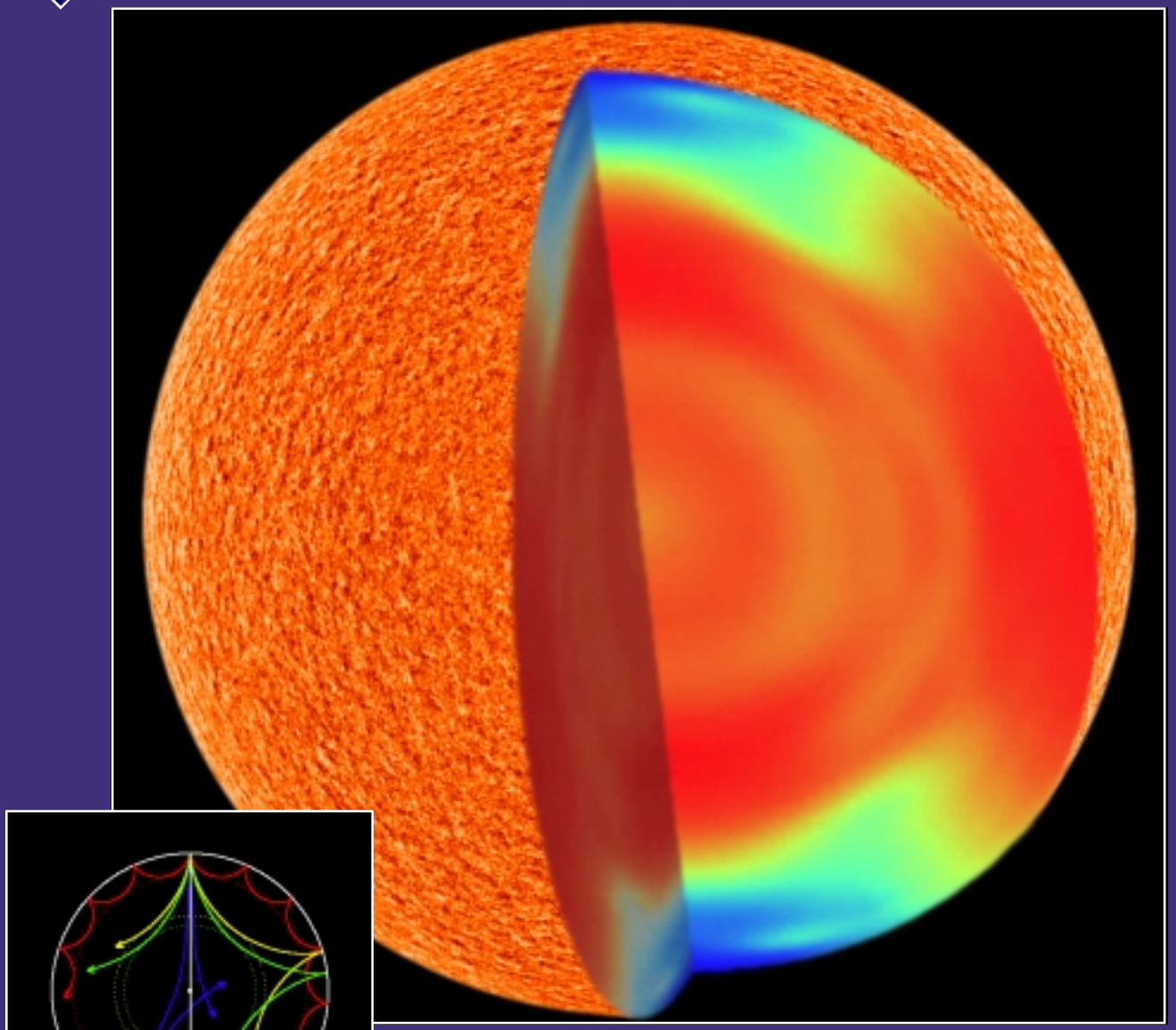
Power spectrum obtained from 2 months of continuous MDI data (May/June 1996). The "ridges" of greater power result from standing sound waves resonating within the Sun.



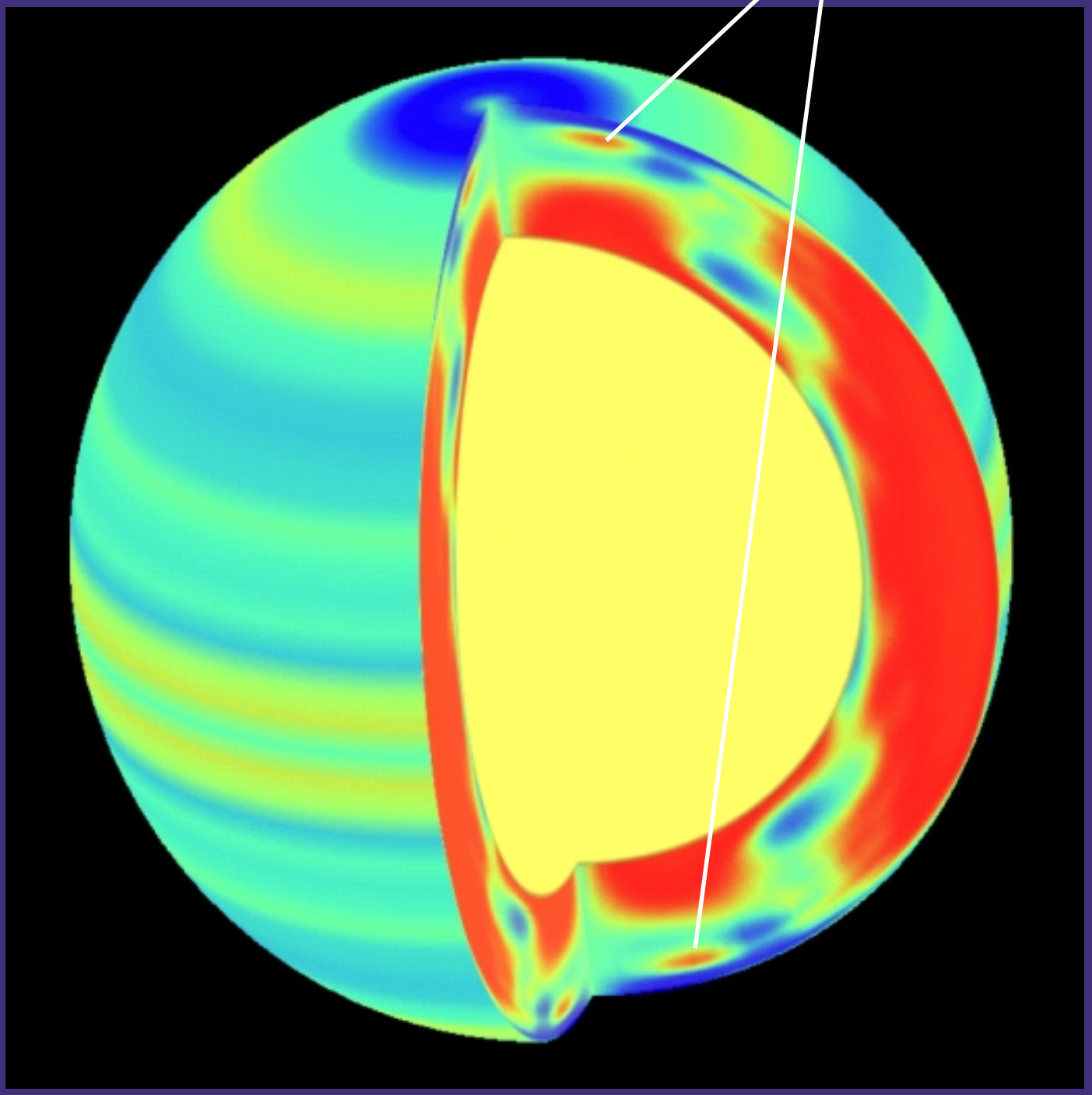
Fourier spectrum of global oscillations observed by GOLF



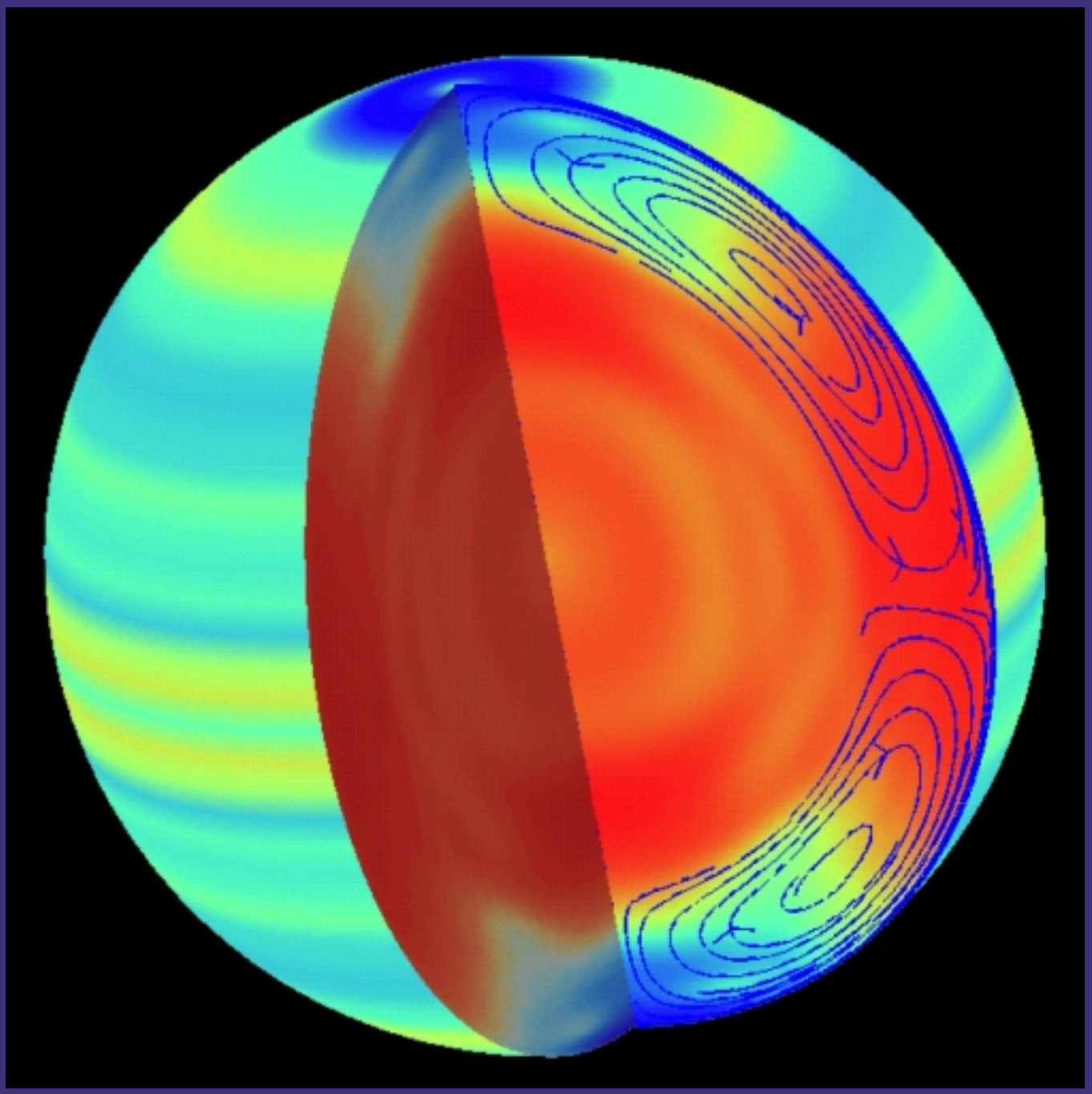
Temporal variations of the amplitudes of solar p-modes as measured by VIRGO



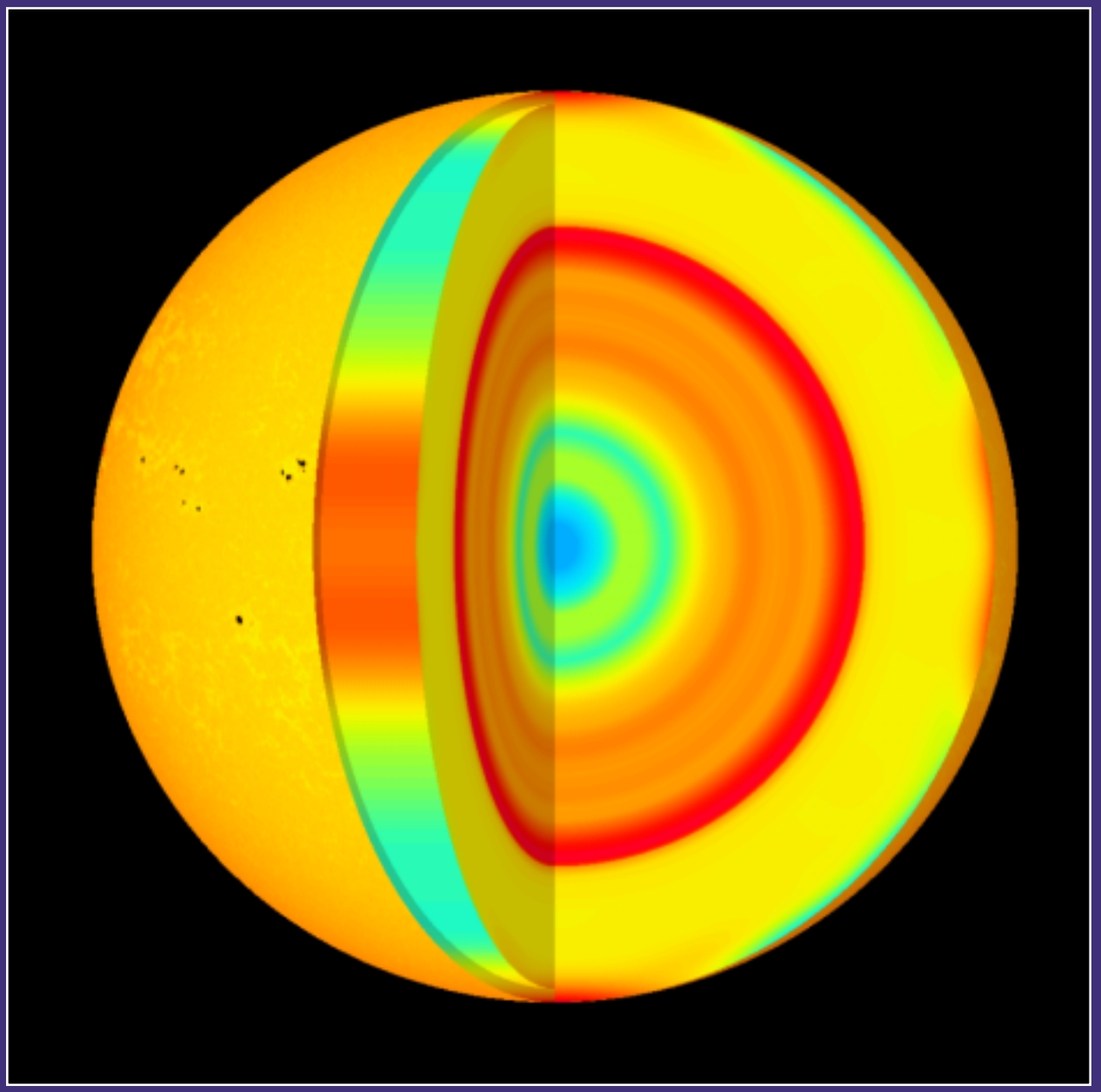
An MDI dopplergram image of the Sun's surface is merged with a helioseismology image of the flows of plasma in the solar interior. The smaller diagram shows the paths of several different acoustic (pressure) waves inside of the Sun whose measurements reveal its internal structure.



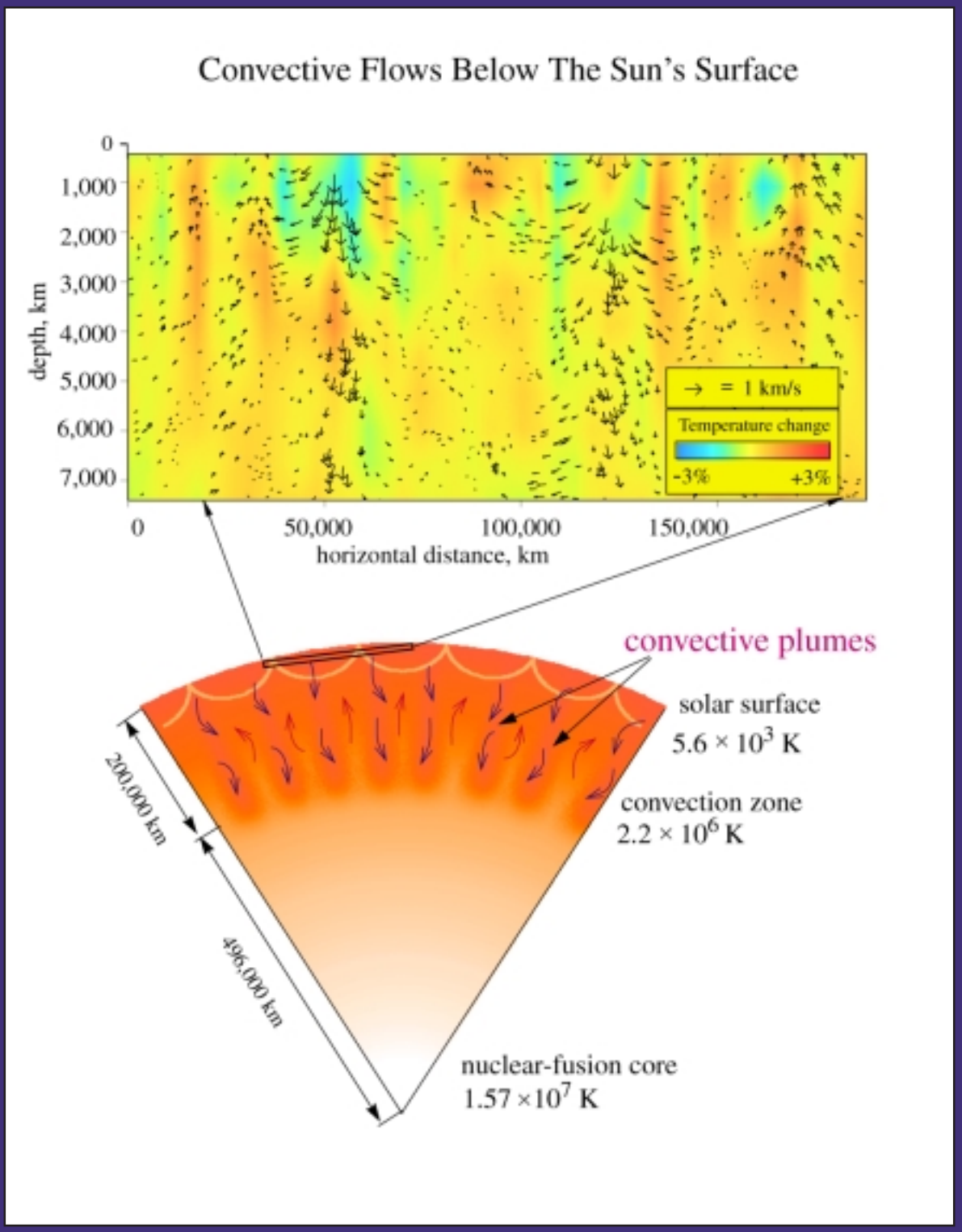
Polar plasma jet streams and variation in rotational speed in the solar interior as measured by MDI



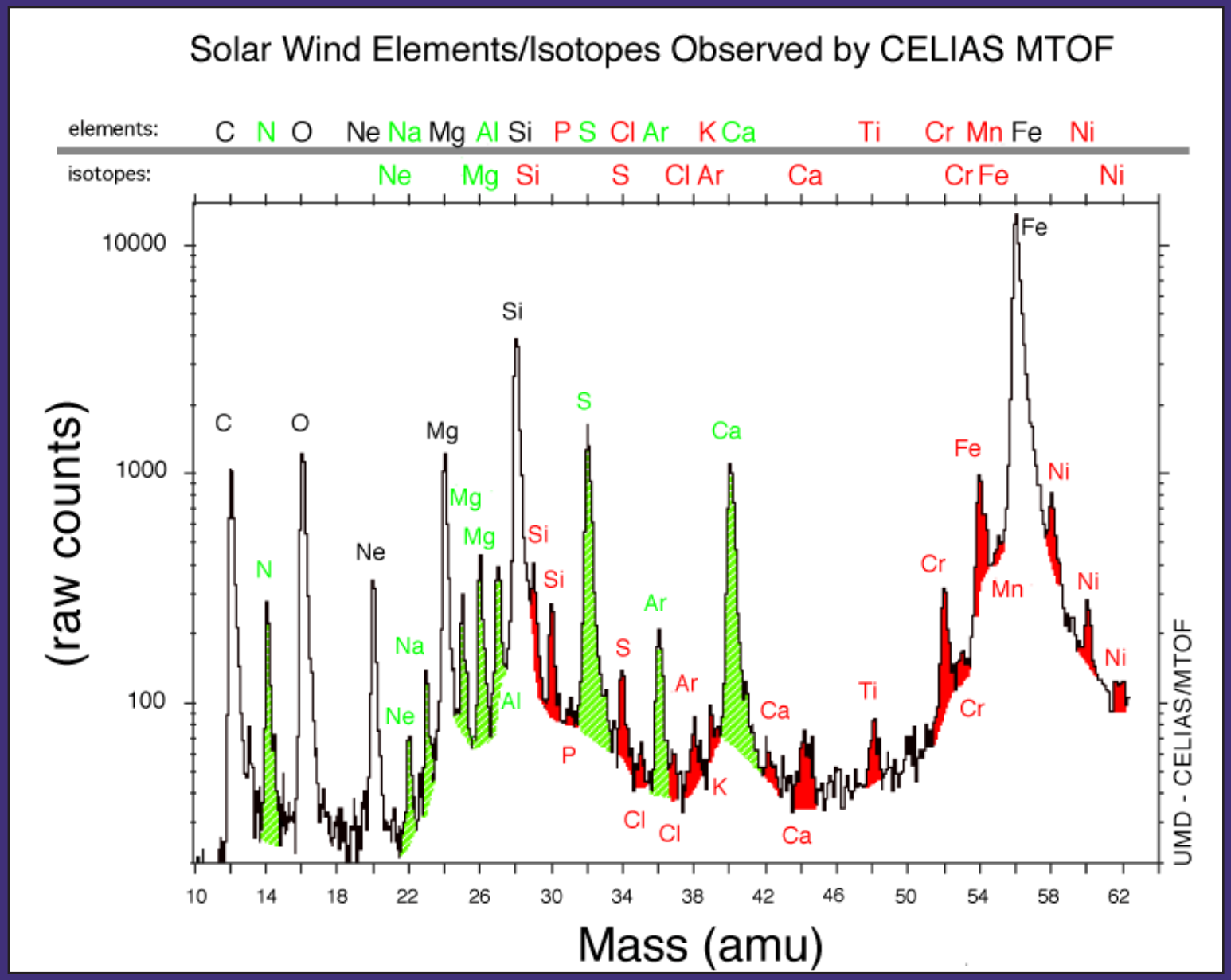
Solar rotation and polar flows of the Sun as deduced from measurements by MDI. The cutaway reveals rotation speed inside the Sun.



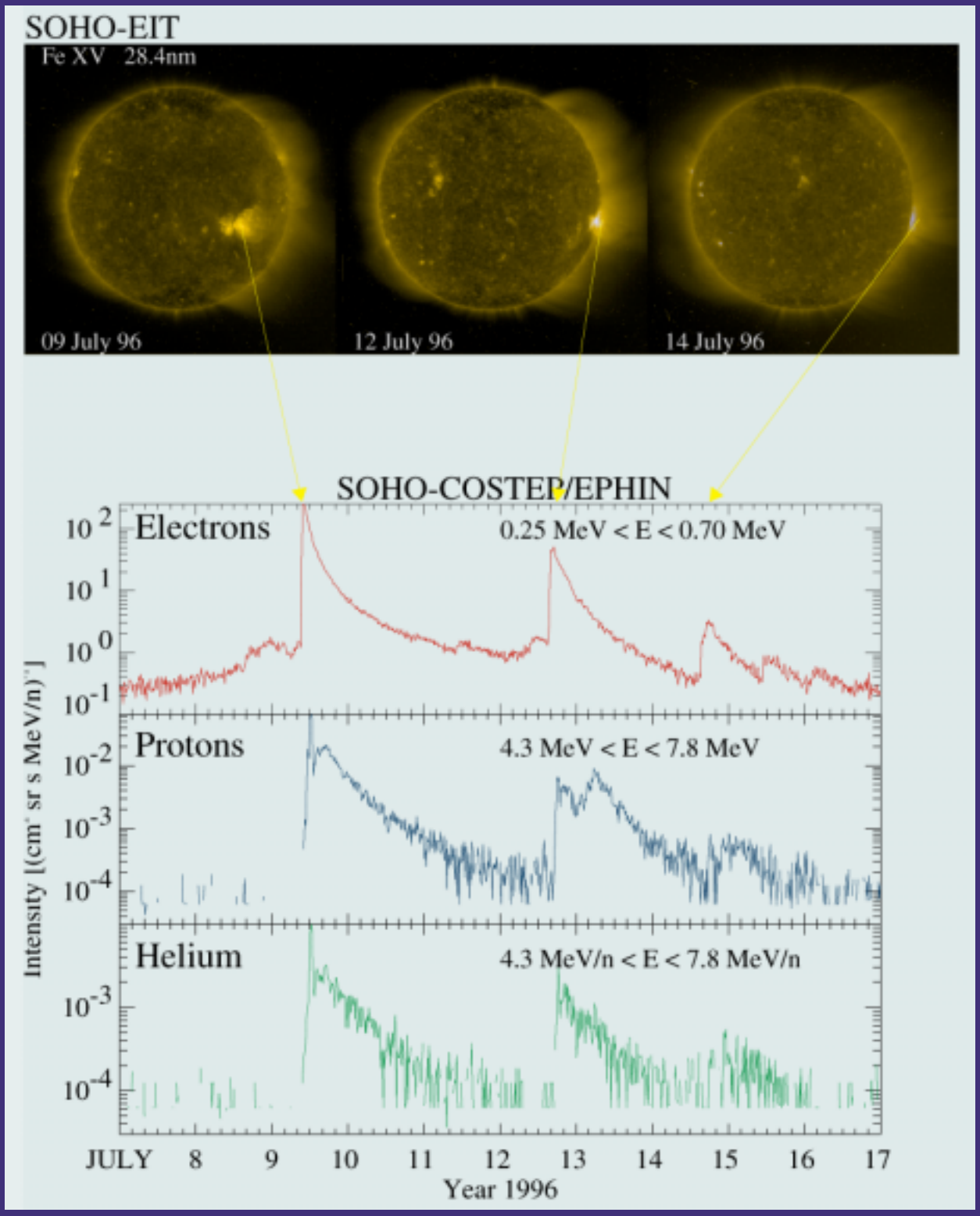
Radial and latitudinal variations of the sound speed in the Sun as derived from MDI and VIRGO measurements. Red = hotter regions than in standard model, blue = cooler regions.



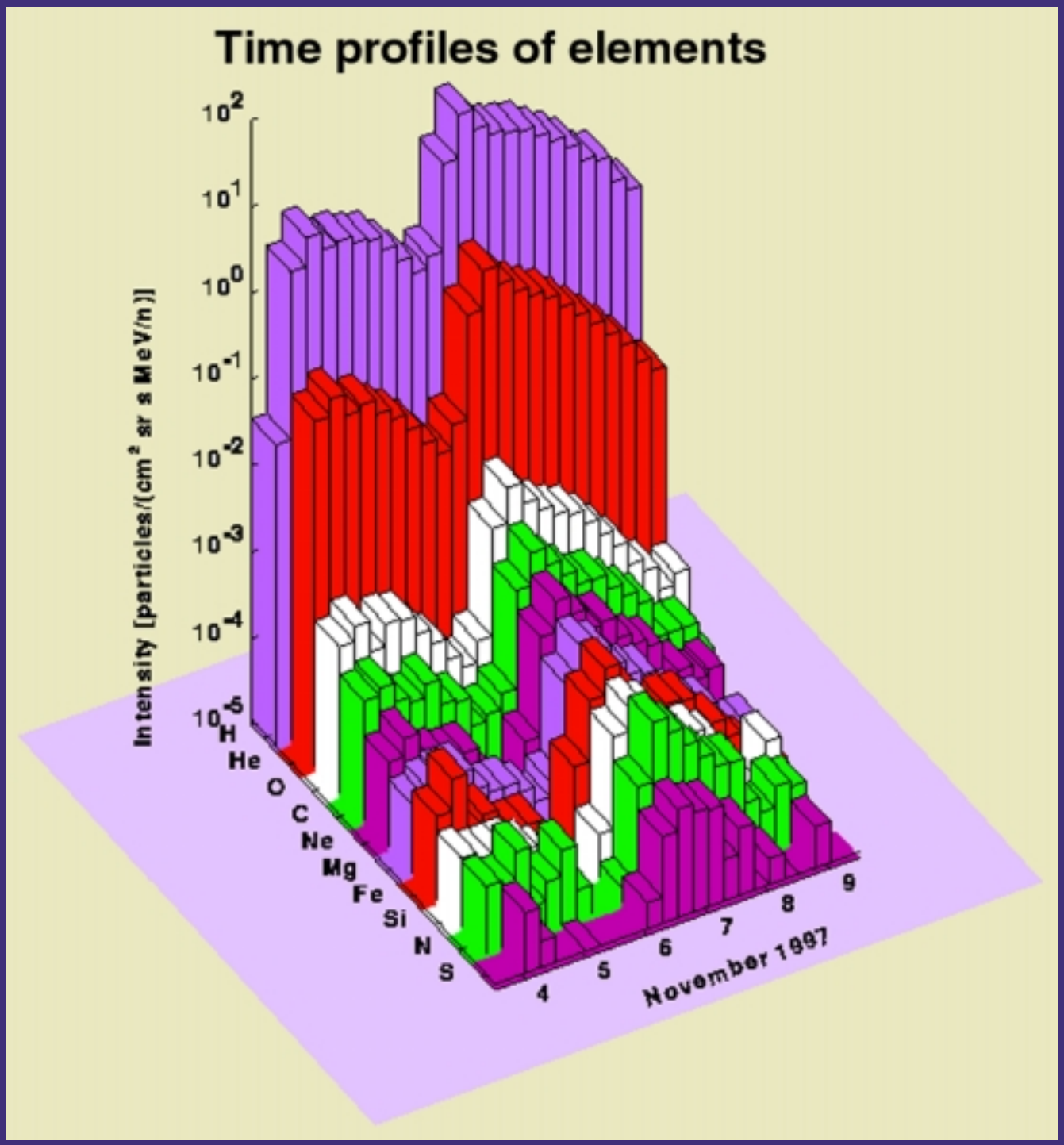
First image of the sub-surface temperatures and flows in the convection zone of a star deduced from MDI observations



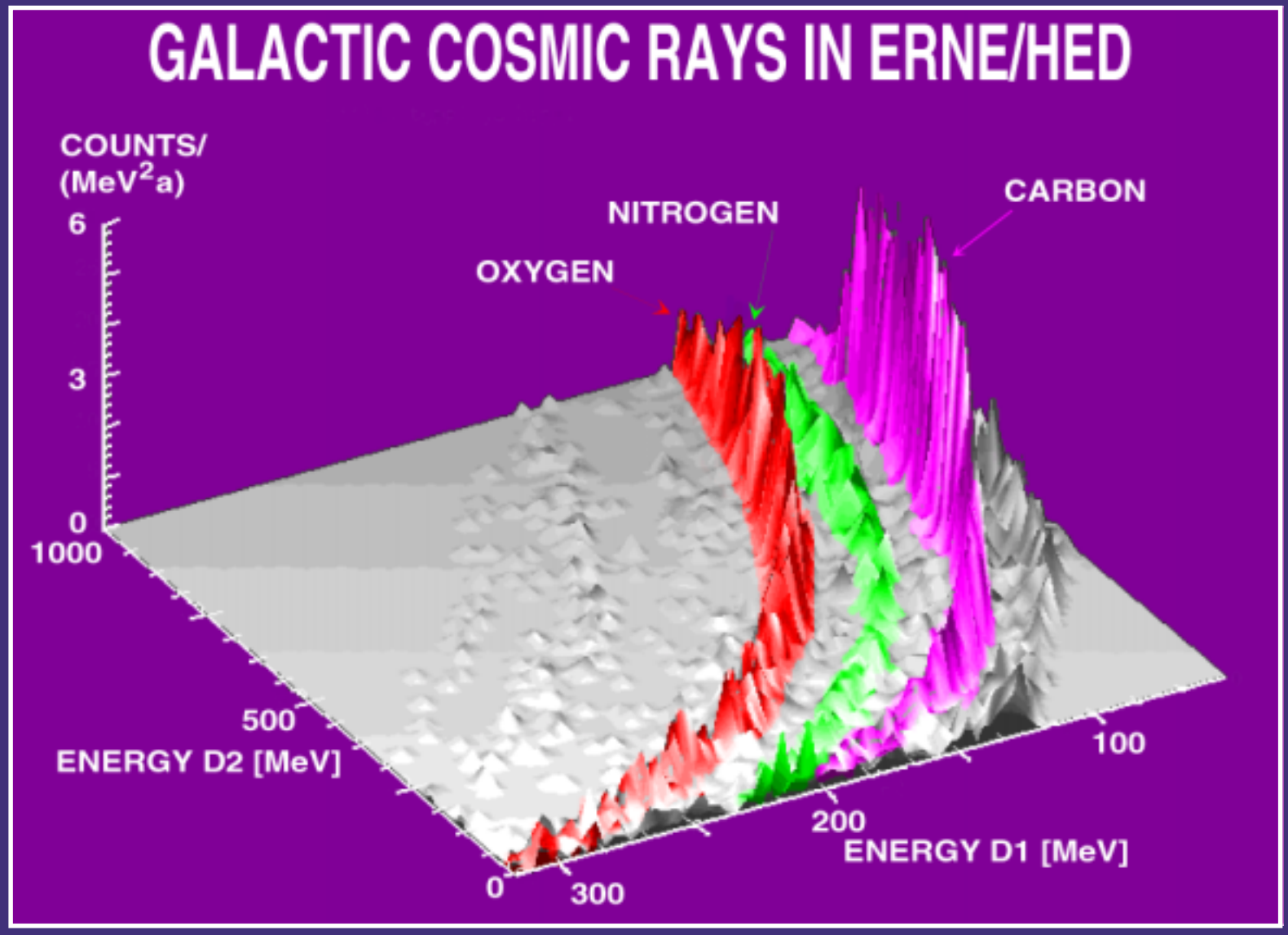
CELIAS chart showing new *(red)* and rarely observed *(green)* elements and isotopes discovered in the solar wind



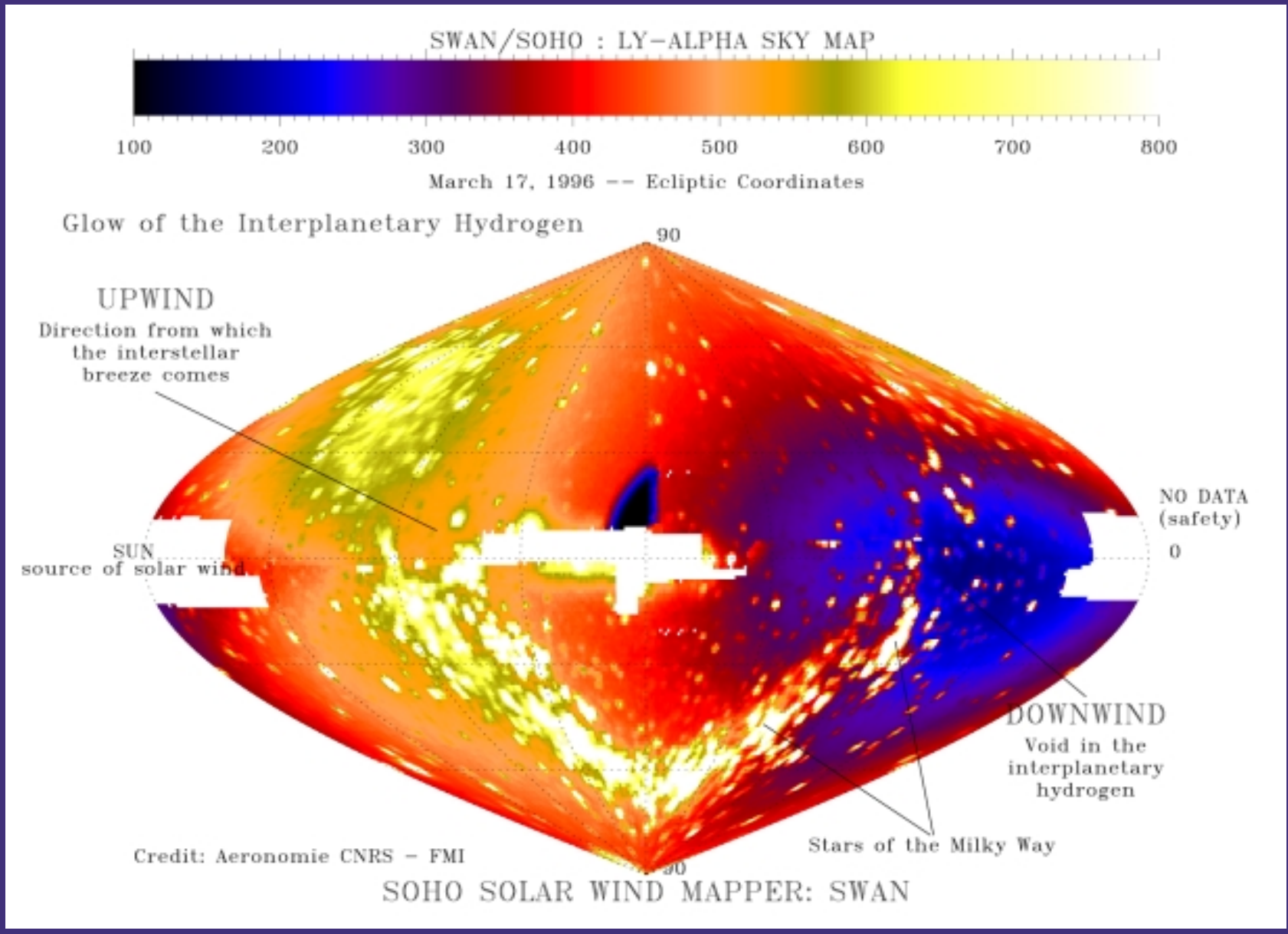
Series of solar energetic particle events observed in July 1996 by the COSTEP instrument



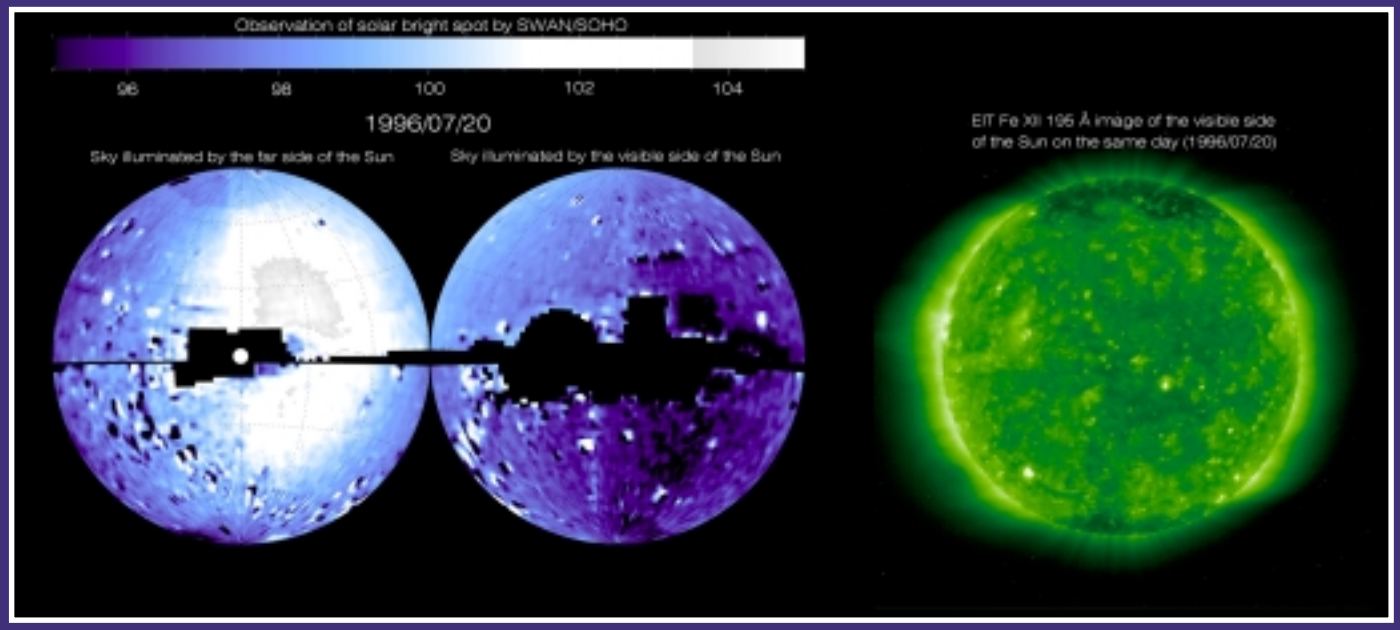
Time profile of elements during the flare event of 6 November 1997, as detected by the ERNE instrument



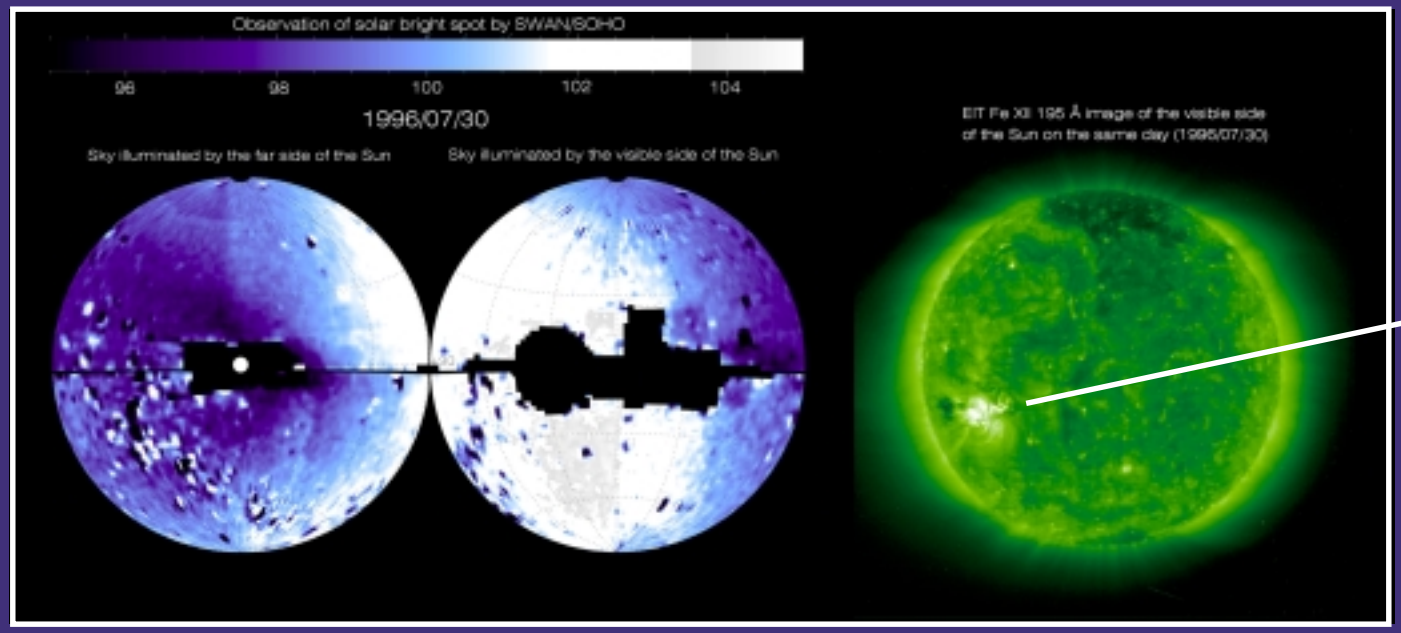
Galactic cosmic rays as recorded by ERNE. Galactic cosmic radiation consists of particles originating in the Milky Way



Lyman-α whole sky map as recorded by SWAN on 2 February 1996. The U-shaped yellow, bright band is the Milky Way.

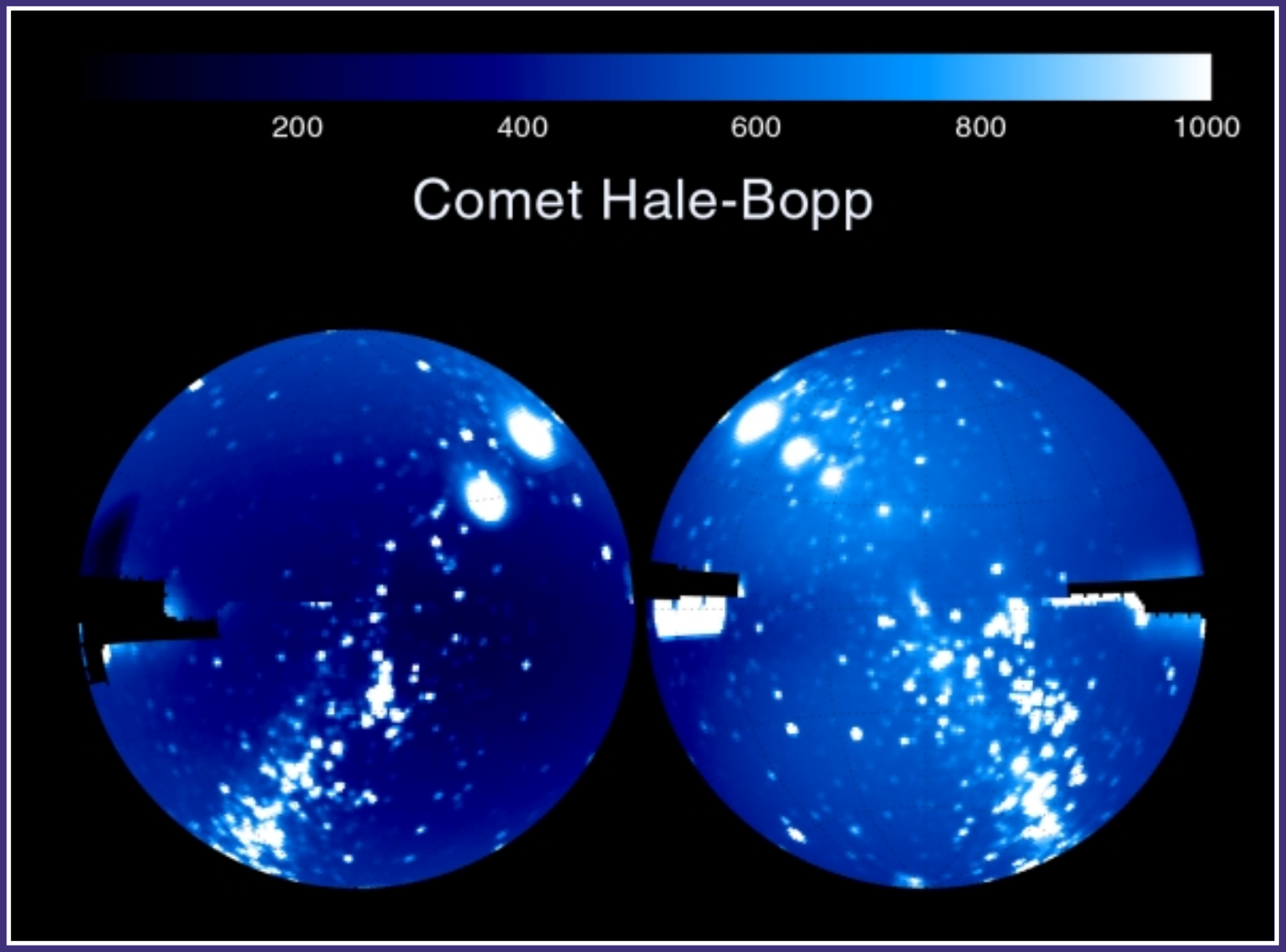


Active region on the far side

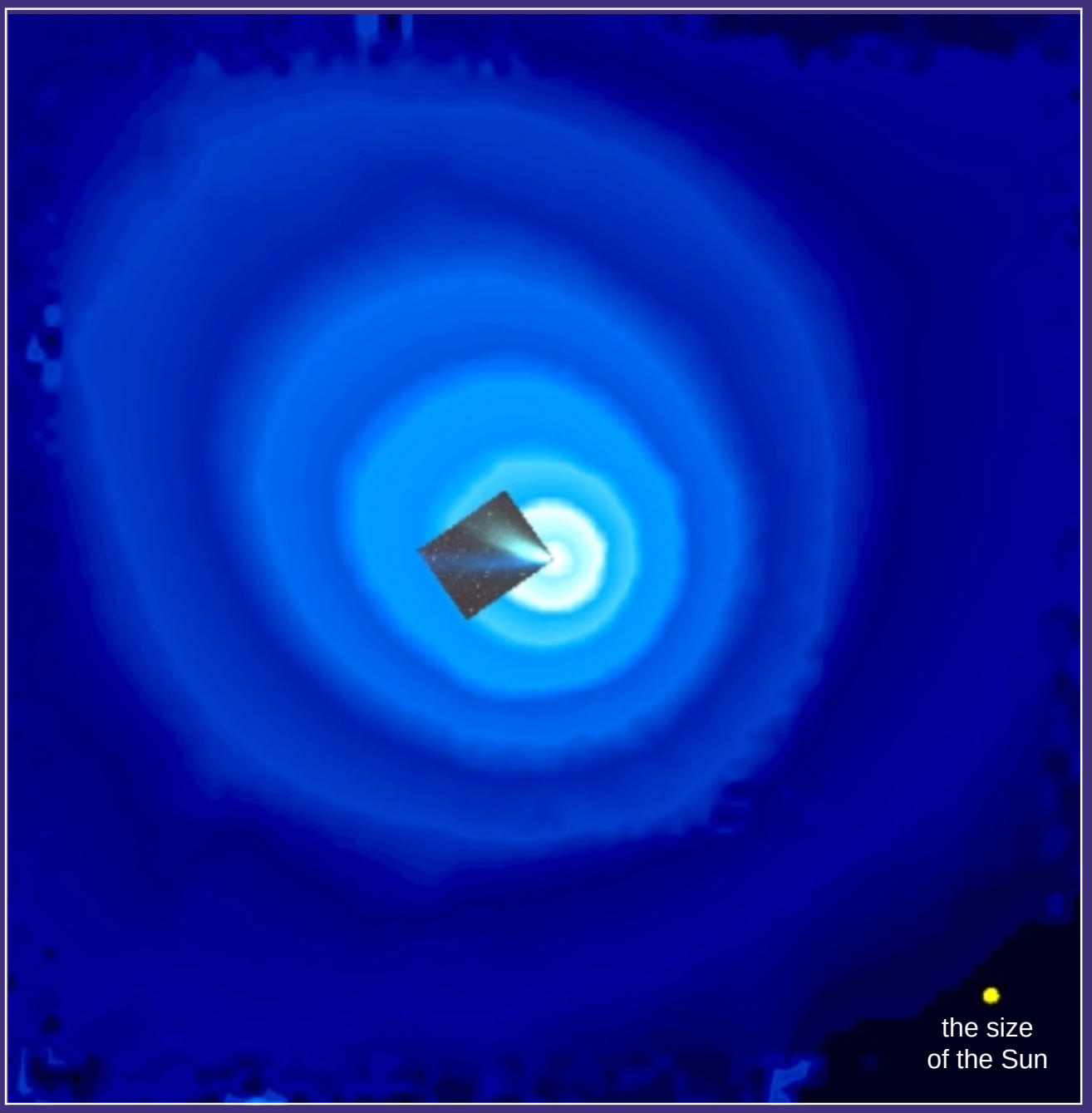


Active region now visible

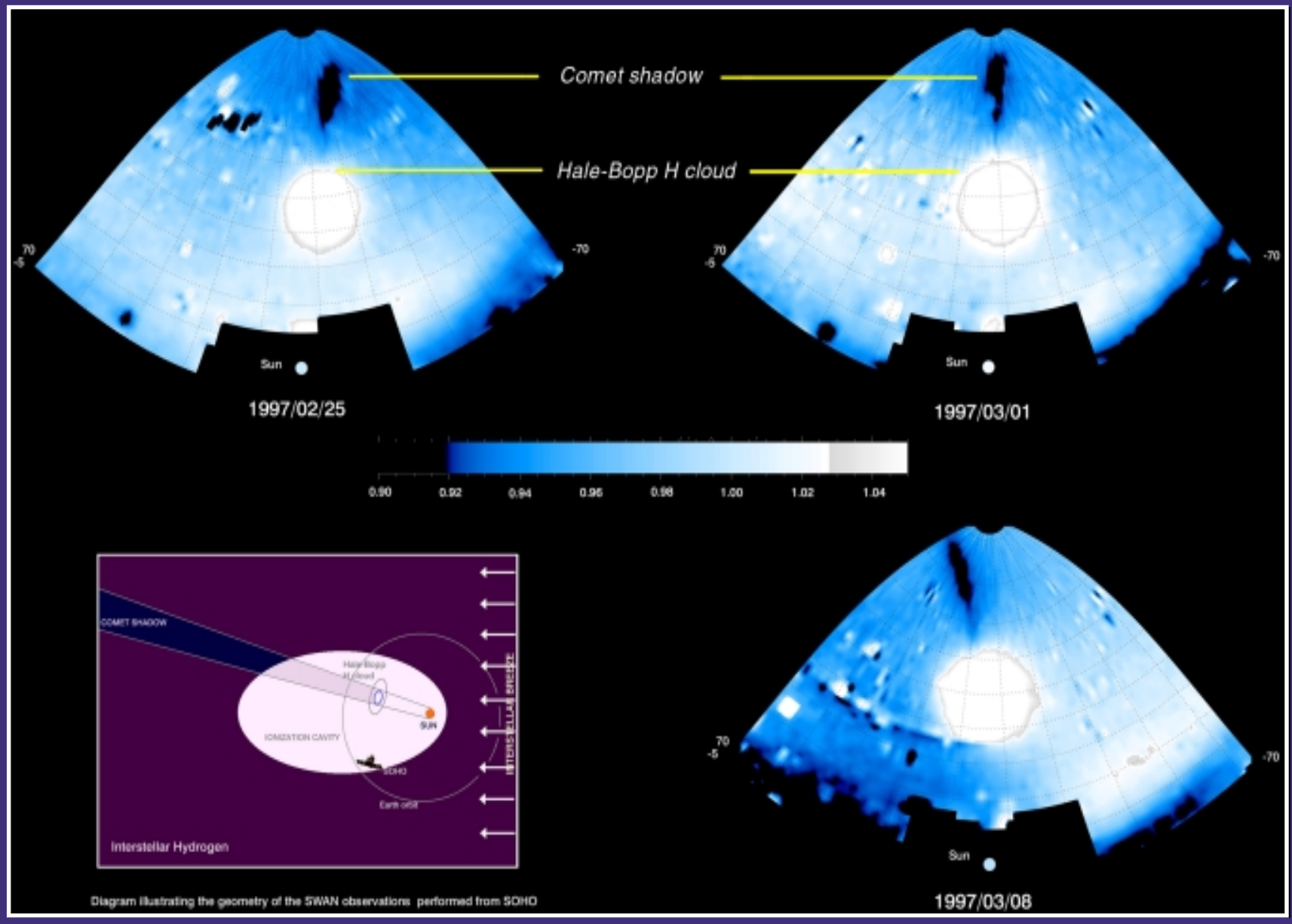
SWAN observation of active regions on the far side of the Sun. Active regions illuminate the distant interstellar hydrogen cloud like a searchlight strikes clouds at night.



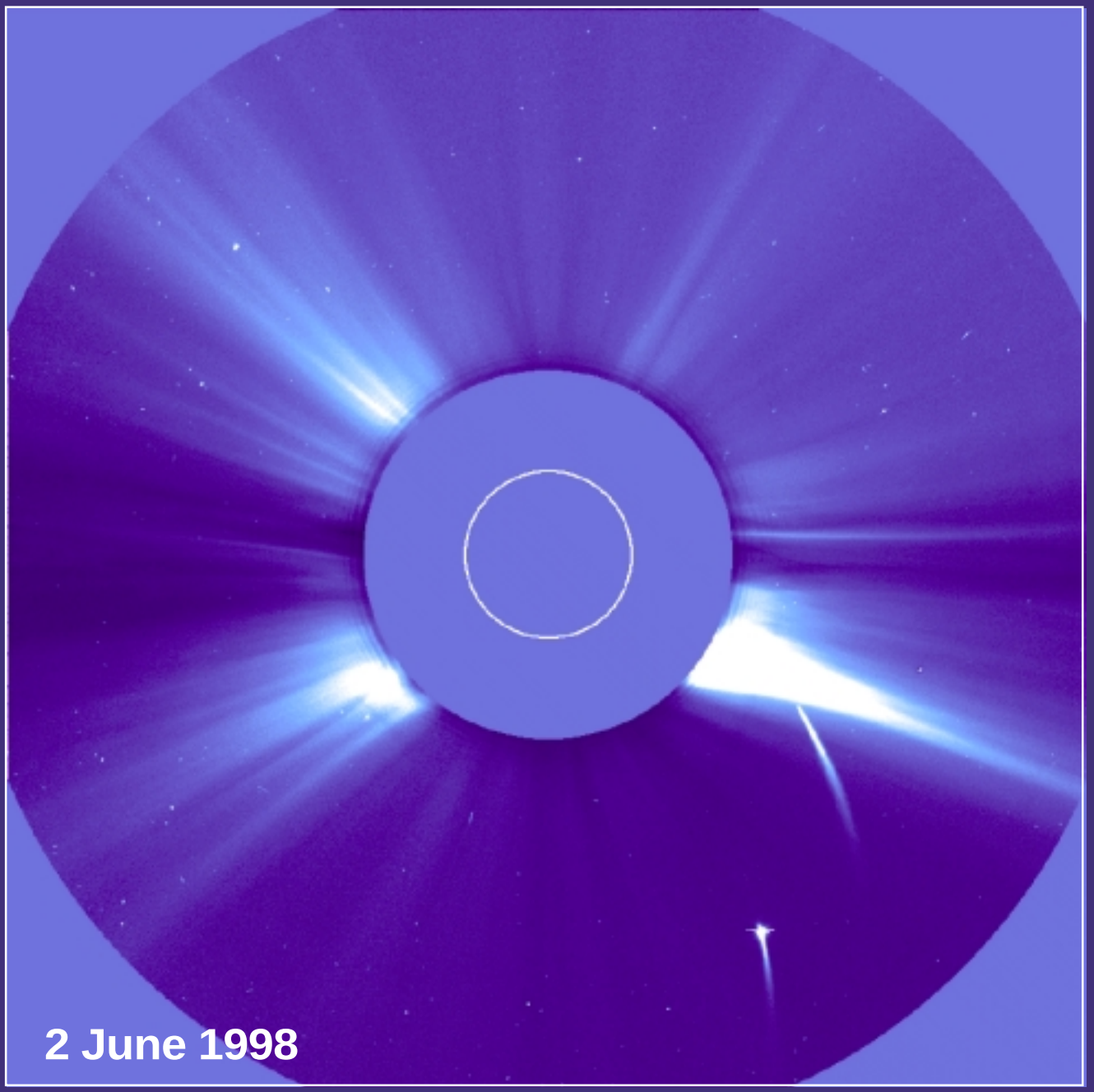
Comet Hale-Bopp seen approaching the Sun in a time series of six SWAN full sky images in the ultraviolet light (1100-1800 Å) from 4 January to 3 April 1997



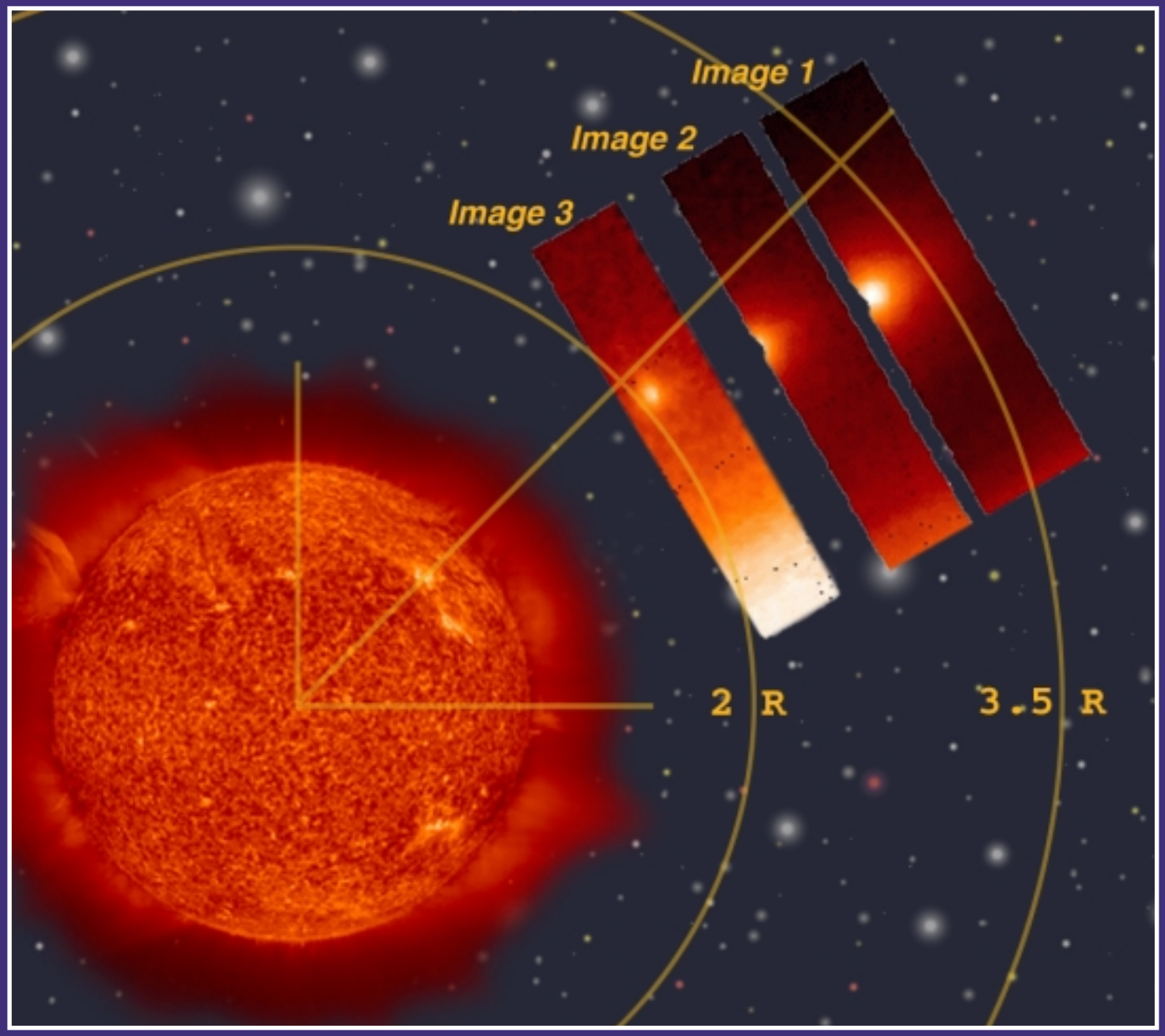
SWAN recording of the huge cloud of hydrogen, 70 times the size of the Sun, surrounding Comet Hale-Bopp when it neared the Sun in 1997. Ultraviolet light revealed a cloud 100 million kilometres wide and diminishing in intensity outwards (contour lines).



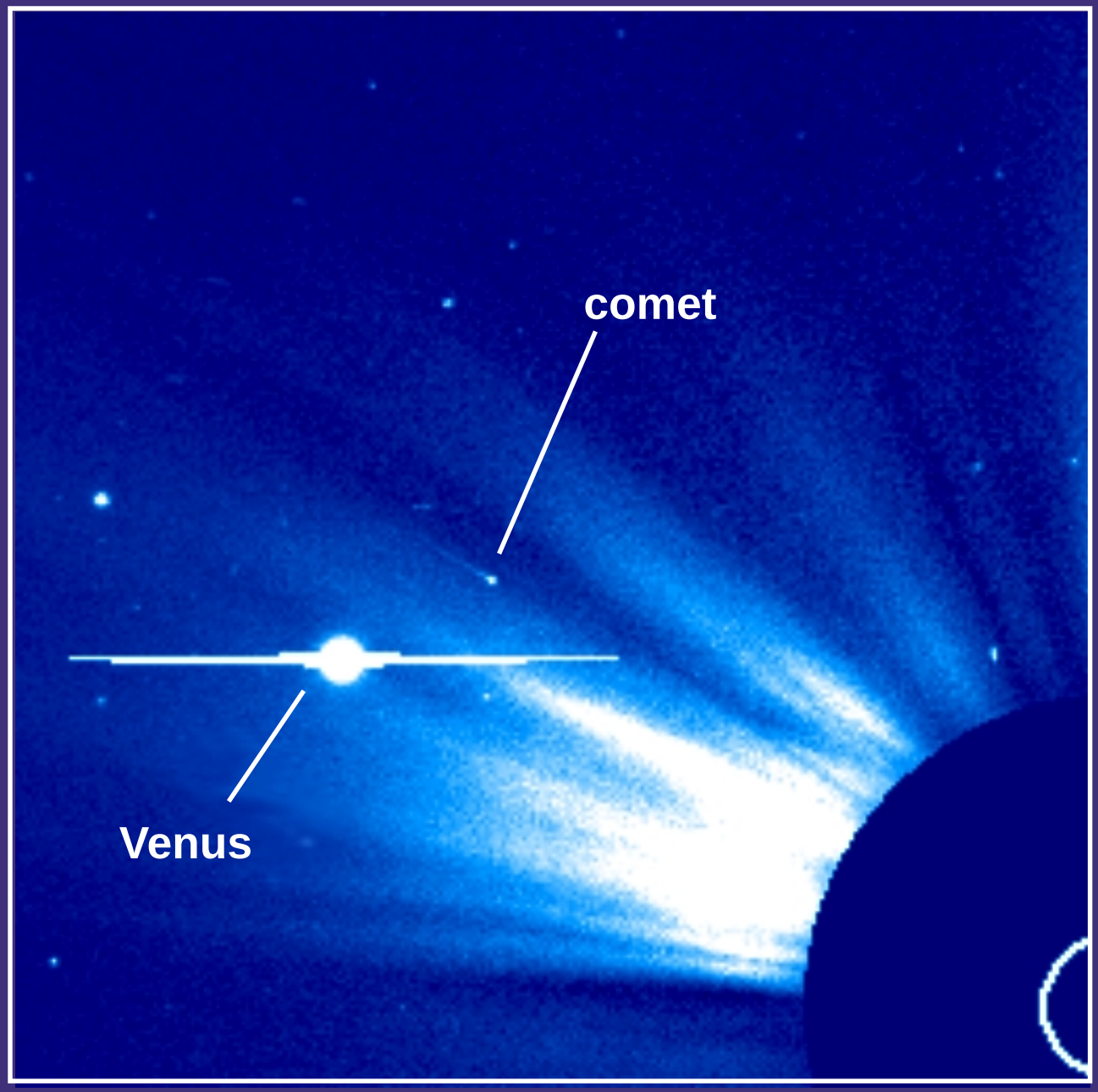
Observation of the shadow of Comet Hale-Bopp by SWAN



Two “Sungrazing” comets heading in tandem towards the Sun’s corona. They do not reappear on the other side.



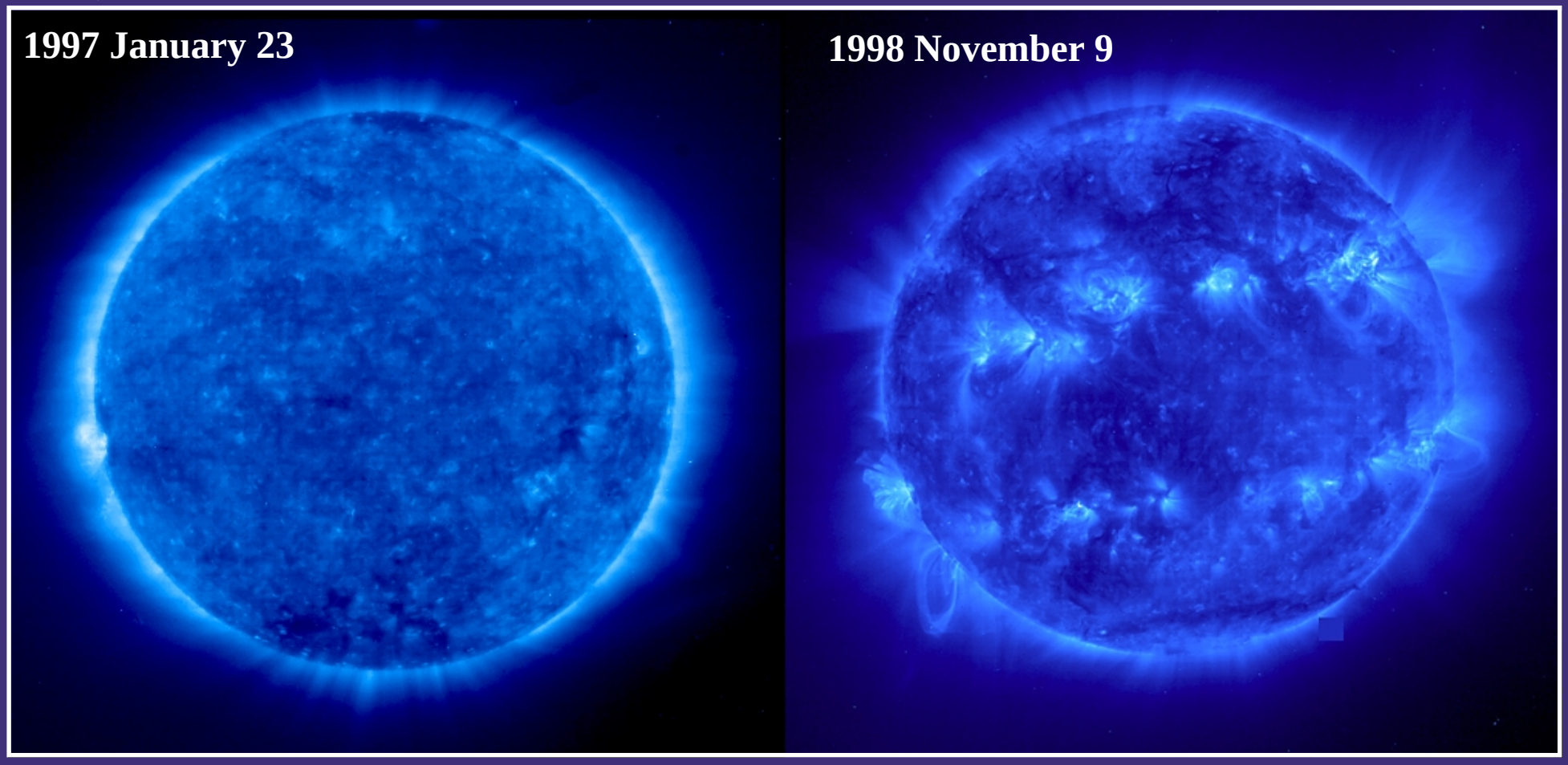
A comet observed by UVCS in Lyman alpha on 1-2 May 1997 as it approaches the Sun



Spectacular view of the solar corona with Venus and a sungrazing comet (SOHO 58) as observed by LASCO

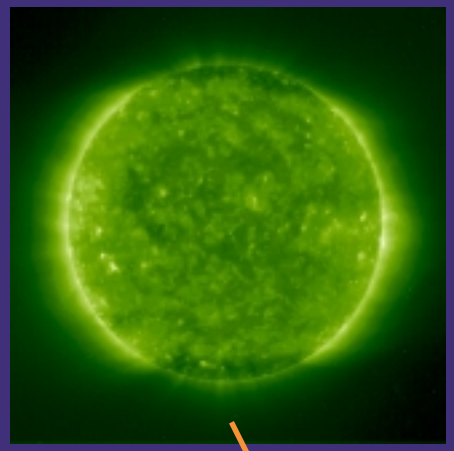
LASCO C2	LASCO C3
1997	
1998	
1999	

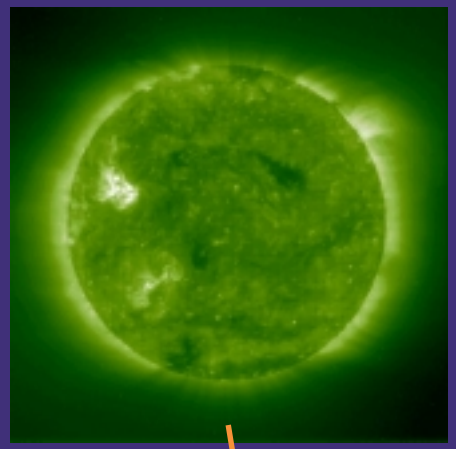
The changing shape and structure of the corona with the solar cycle

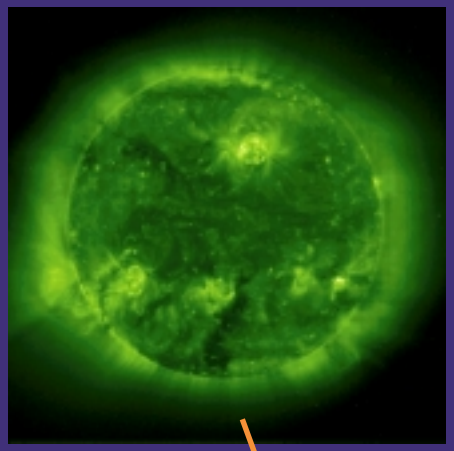


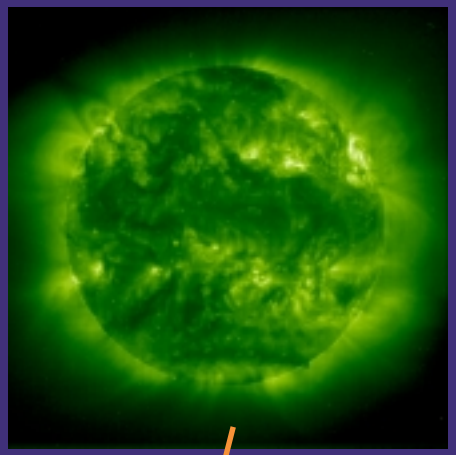
A comparison of two EIT images almost two years apart illustrates how the level of solar activity has increased significantly

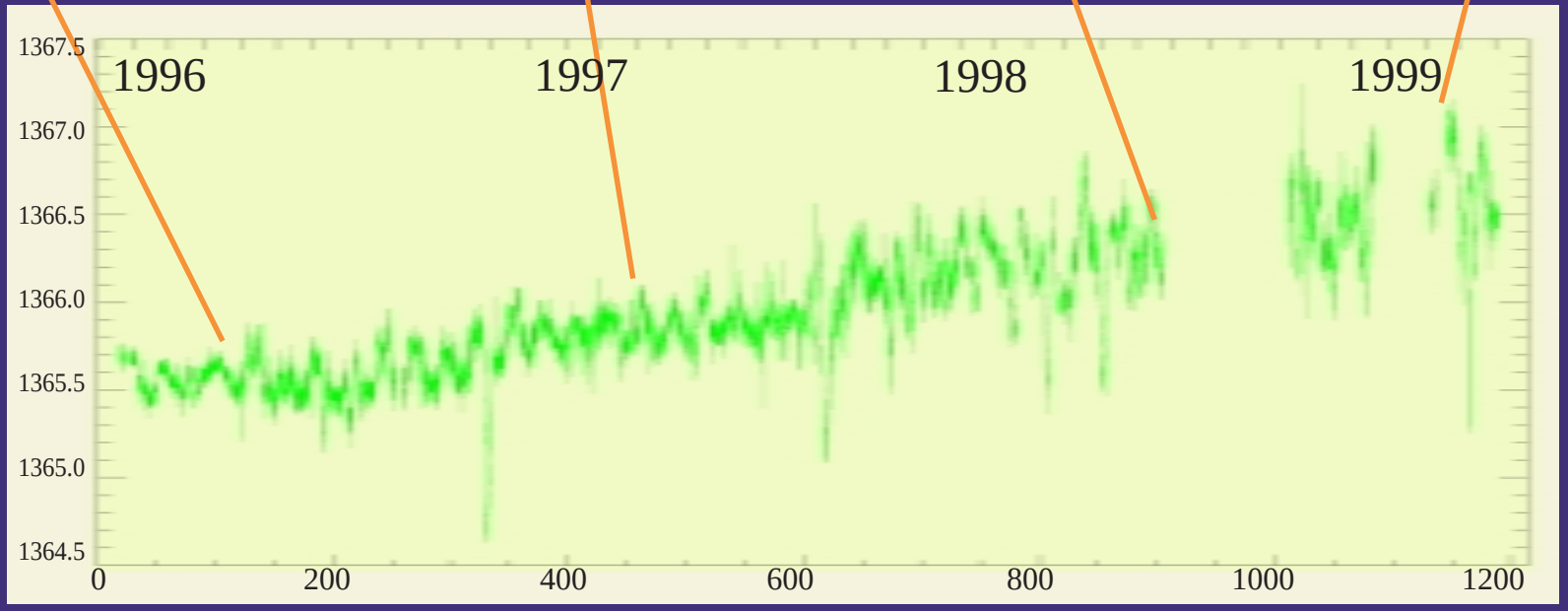
Images are Fe IX/X at 171 Å showing the solar corona at a temperature of about 1 million K.



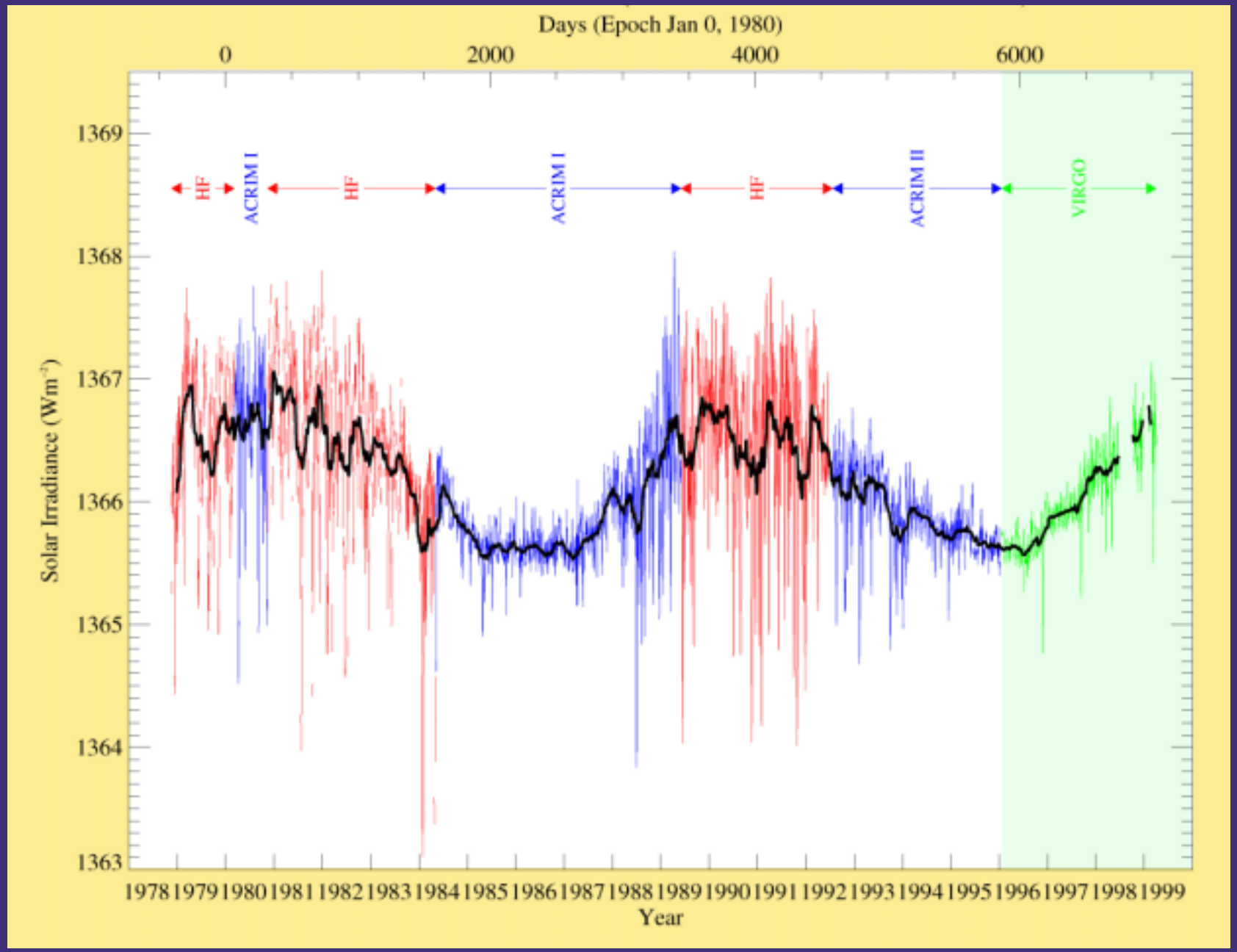




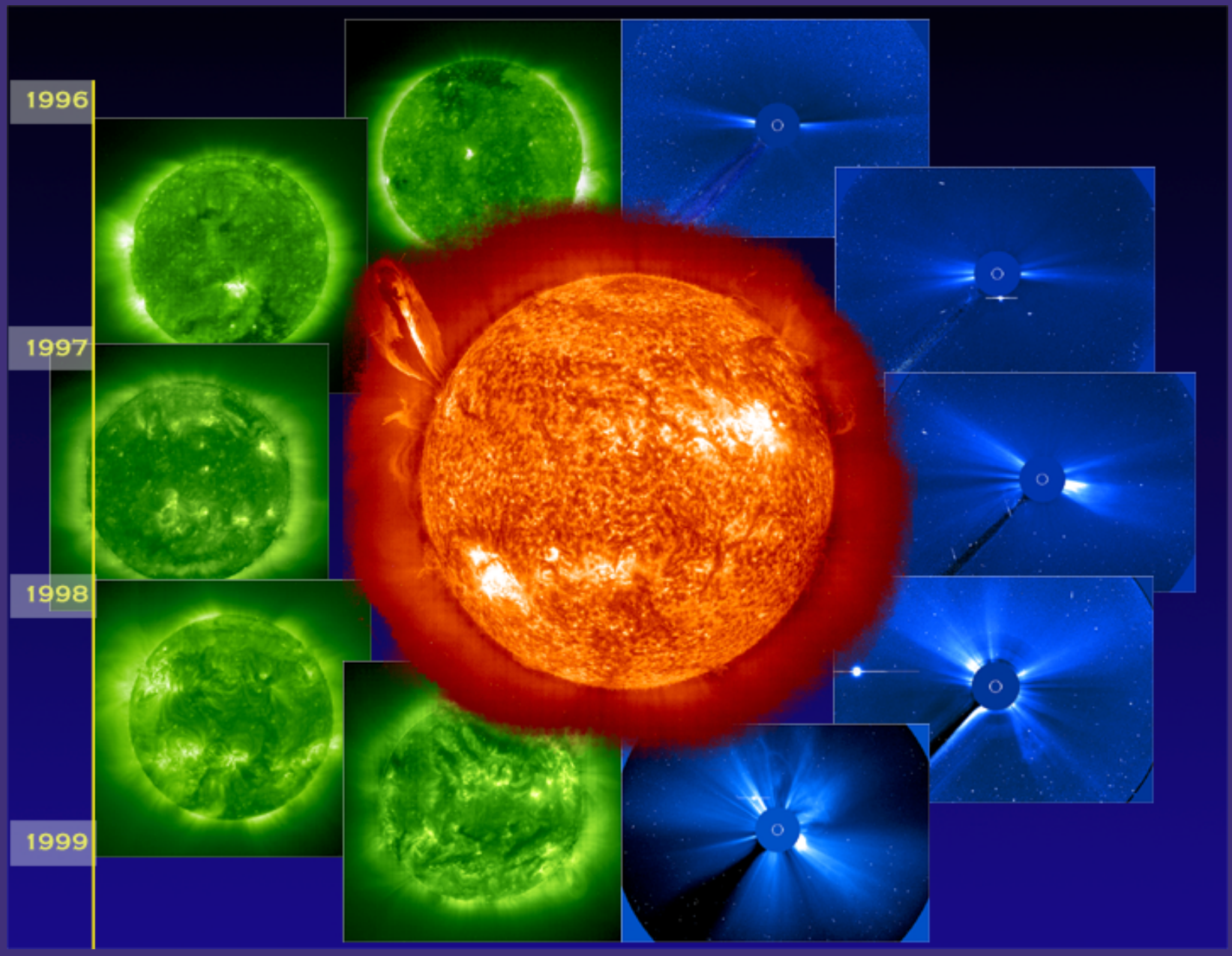




Increasing total solar irradiance as measured by VIRGO since SOHO's launch. The EIT full disk images show a corresponding increase in solar activity.



Total irradiance variations during solar cycles 21–23 as recorded by several satellites since 1978. The data shaded in green is from the VIRGO instrument.



The gradual increase in solar activity as shown in the EIT and LASCO C3 images illustrates the approach of solar maximum